

CLAIMS

1. An electric dental flosser apparatus comprising:

a drive shaft;

5 a drive mechanism operable to rotationally oscillate the drive shaft about its own axis;

a floss holder mounted on the drive shaft so as to be oscillated rotationally by the drive shaft; and

a flosser element stretched on the floss holder;

10 wherein the flosser element is held taut in a direction perpendicular to an axial direction of the drive shaft so as to pass across an extension line of the drive shaft or a position adjacent thereto.

2. An electric dental flosser apparatus comprising:

a drive shaft;

15 a drive mechanism operable to rotationally oscillate the drive shaft about its own axis;

a floss holder mounted on the drive shaft so as to be oscillated rotationally by the drive shaft, the floss holder comprising a forked floss holding portion having a proximal end portion and opposite distal end portions; and

20 a flosser element stretched taut between the opposite distal end portions of the floss holding portion;

wherein an intermediate portion of a line connecting an intermediate portion of the flosser element and the proximal end portion of the floss holding portion is positioned on an extension line of the drive shaft or a neighborhood thereof.

25 3. The electric dental flosser apparatus according to claim 2, wherein the floss holder comprises a neck portion mounted on the drive shaft and a floss holding portion mounted on the neck portion, the neck portion being elastically deformable.

4. The electric dental flosser apparatus according to any one of claims 1 to 3, wherein the floss holder comprises a neck portion mounted on the drive shaft and a floss holding portion mounted on the neck portion, and wherein the neck portion and the floss holding portion are formed independently, and the floss holding portion having the flosser element stretched thereon is removably mounted on the neck portion.
5. The electric dental flosser apparatus according to claim 4, wherein the floss holding portion is made of a biodegradable plastic material.
6. The electric dental flosser apparatus according to any one of claims 1 to 5, wherein the floss holder comprises a generally U-shaped floss holding portion having opposite distal end surfaces, an outer side surface, and a floss guide groove defined in the opposite distal end surfaces and at least a portion of the outer side surface, and wherein a length of floss is wound around the floss holding portion while received in the floss guide groove.
7. The electric dental flosser apparatus according to any one of claims 1 to 6, wherein the floss holder having the flosser element stretched thereon is removably mounted on the drive shaft.
8. The electric dental flosser apparatus according to any one of claims 1 to 7, wherein the floss holder comprises a neck portion mounted on the drive shaft and a floss holding portion mounted on the neck portion, and wherein the floss holding portion is inclined such that the flosser element stretched on the floss holding portion is positioned on a further distal end side beyond a distal end of the neck portion in an axial direction of the drive shaft.
9. The electric dental flosser apparatus according to any one of claims 1 to 8, wherein a plurality of flosser elements are stretched taut on the floss holder.